



Figure 1  
Biocular EPE

Prior art

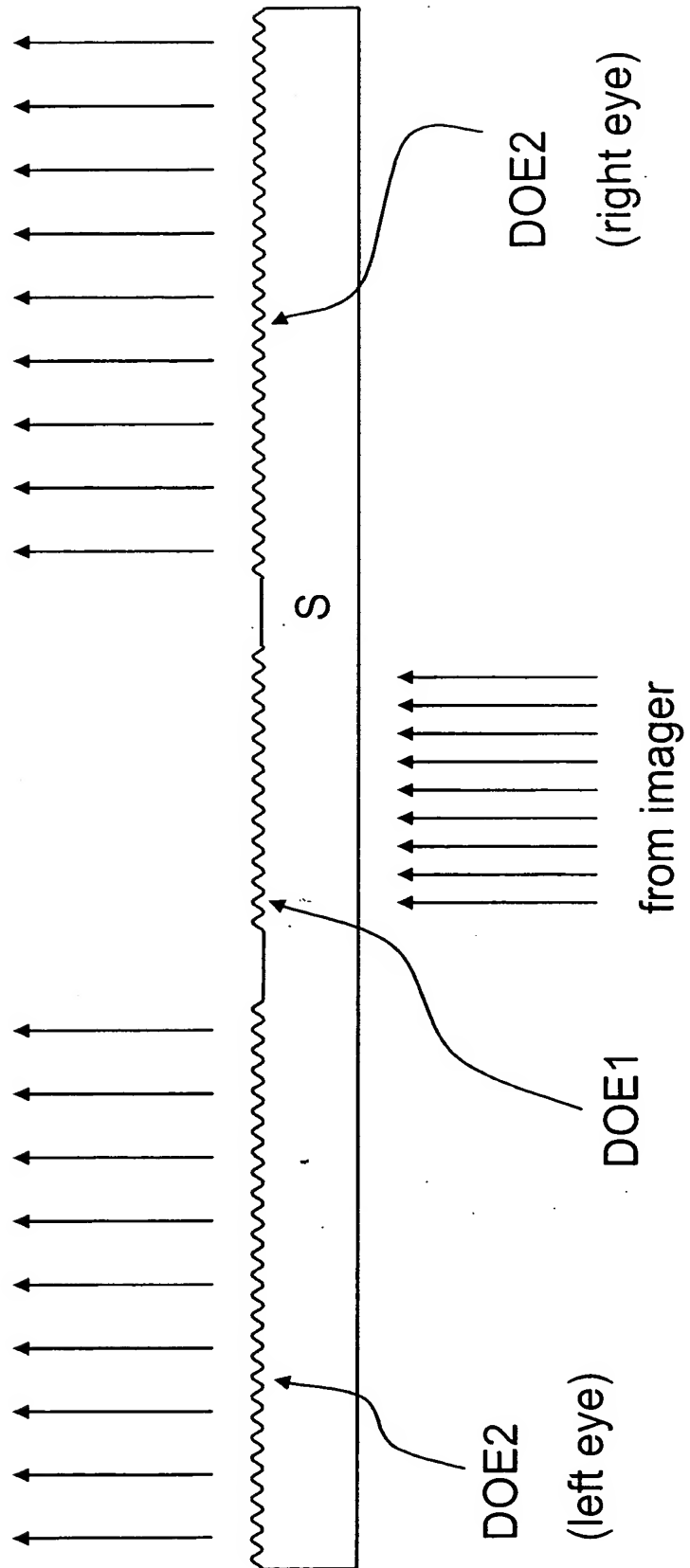
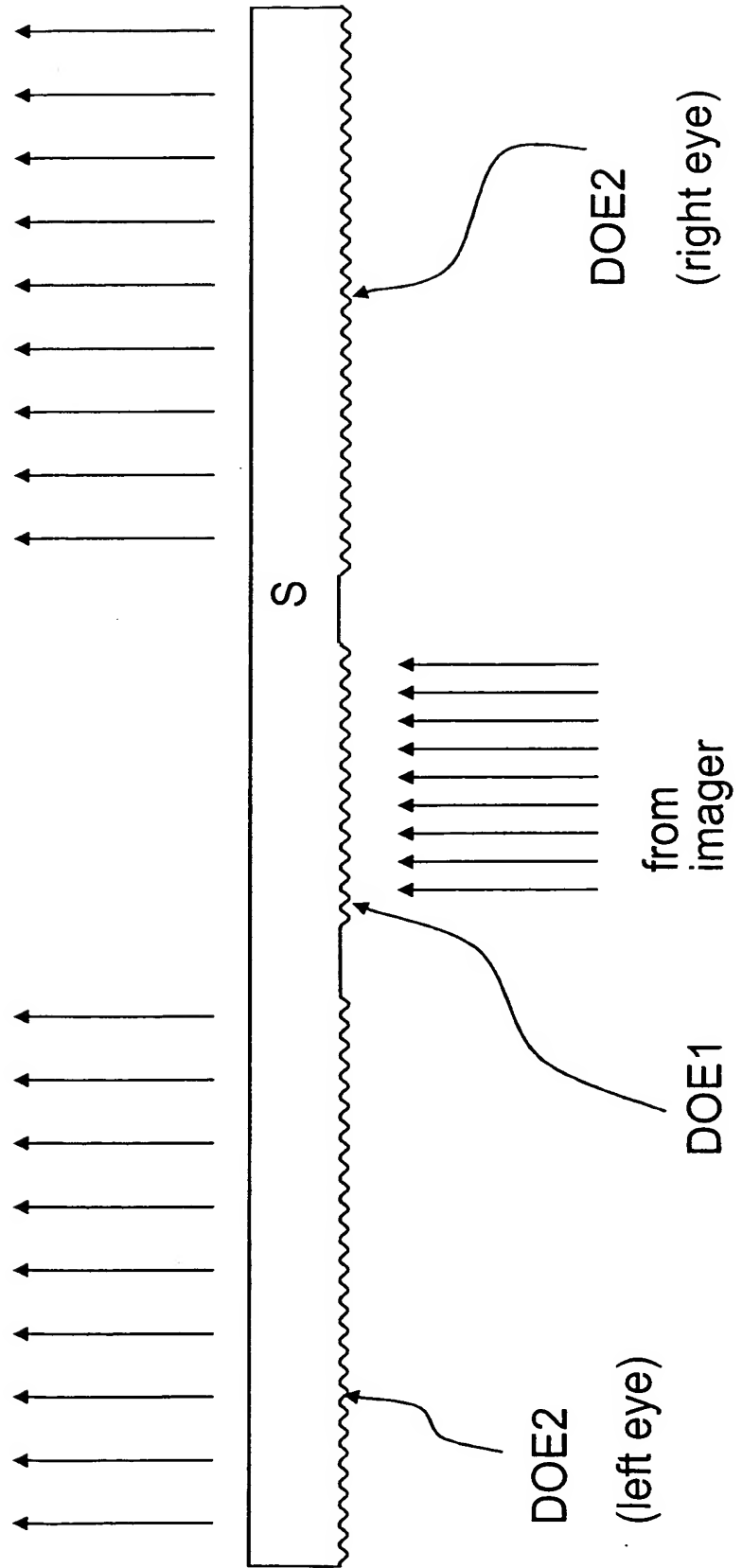
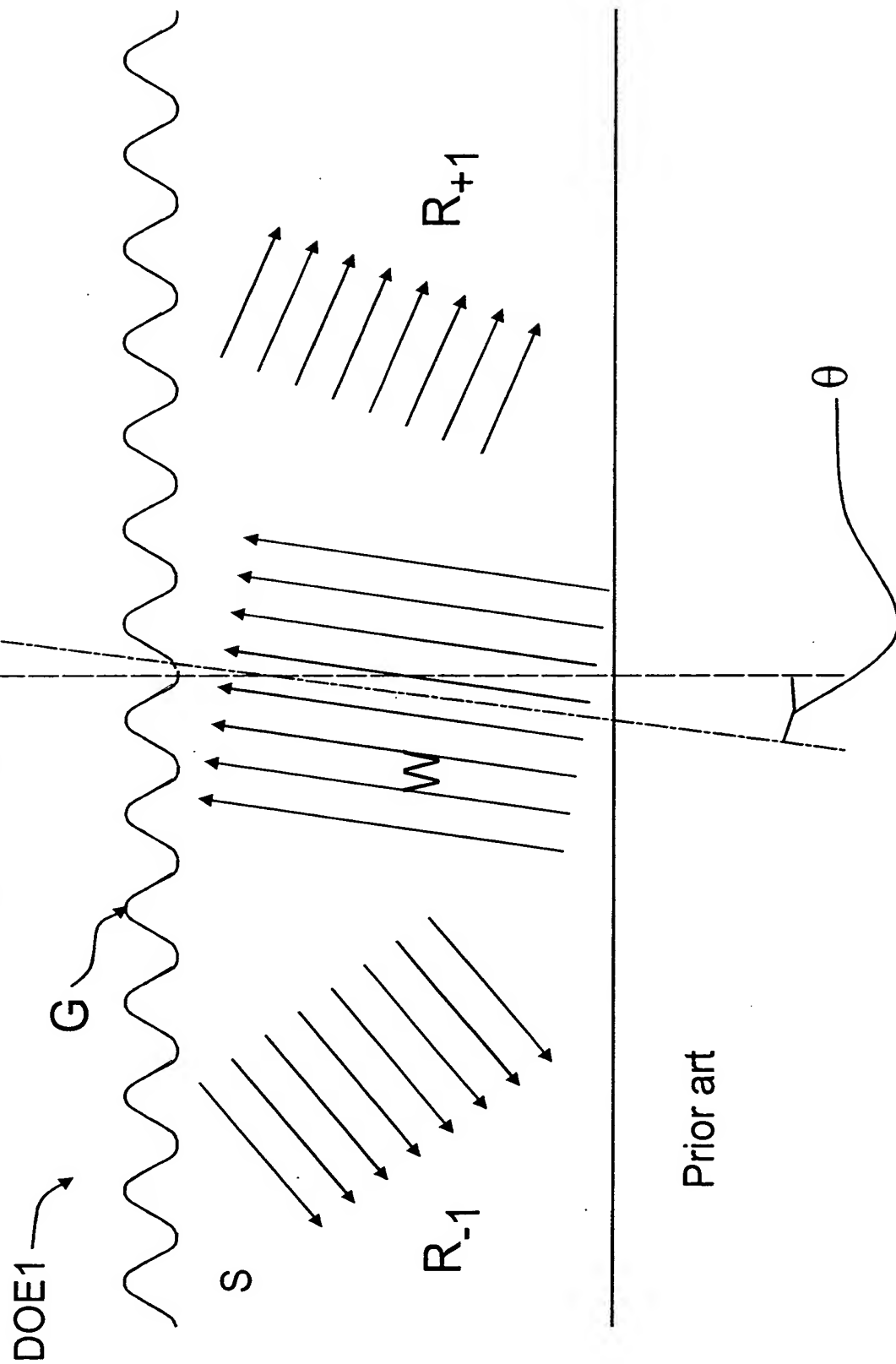


Figure 2  
Biocular EPE

Prior art



**Figure 3**  
Continuous grating with symmetric period profile



# Figure 4

Angular dependency

Profile =  $A \cdot \sin(2\pi x/d)$

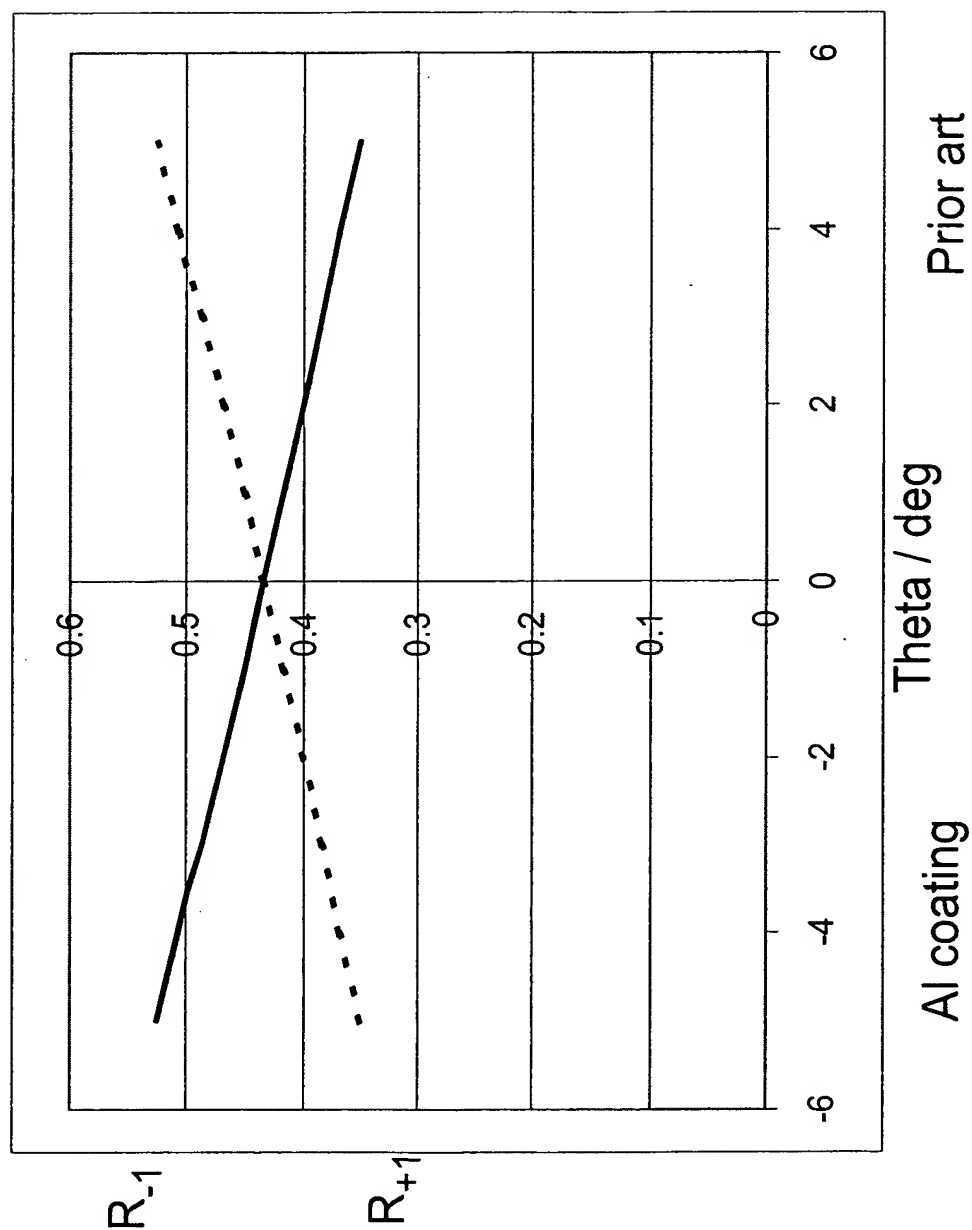
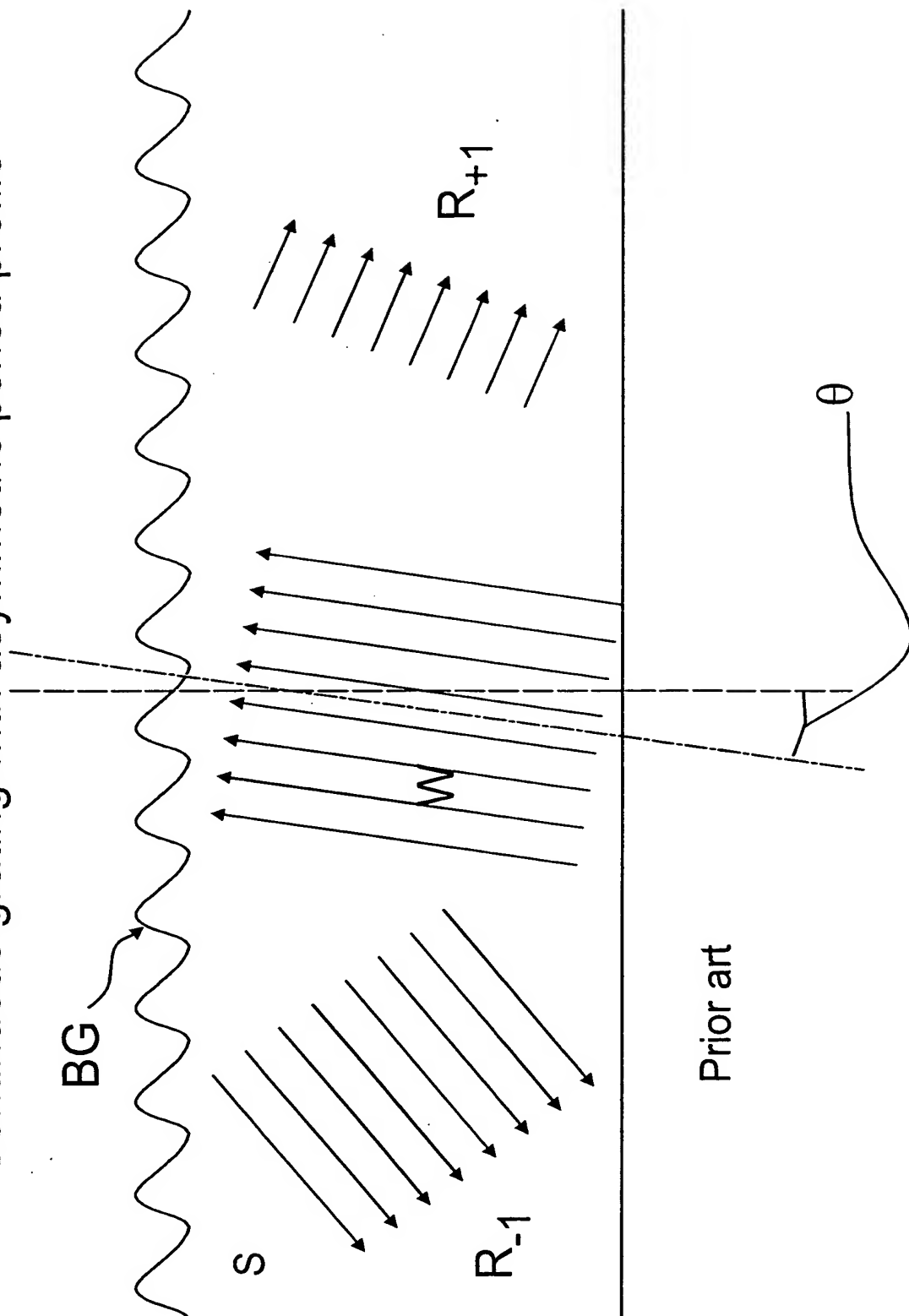
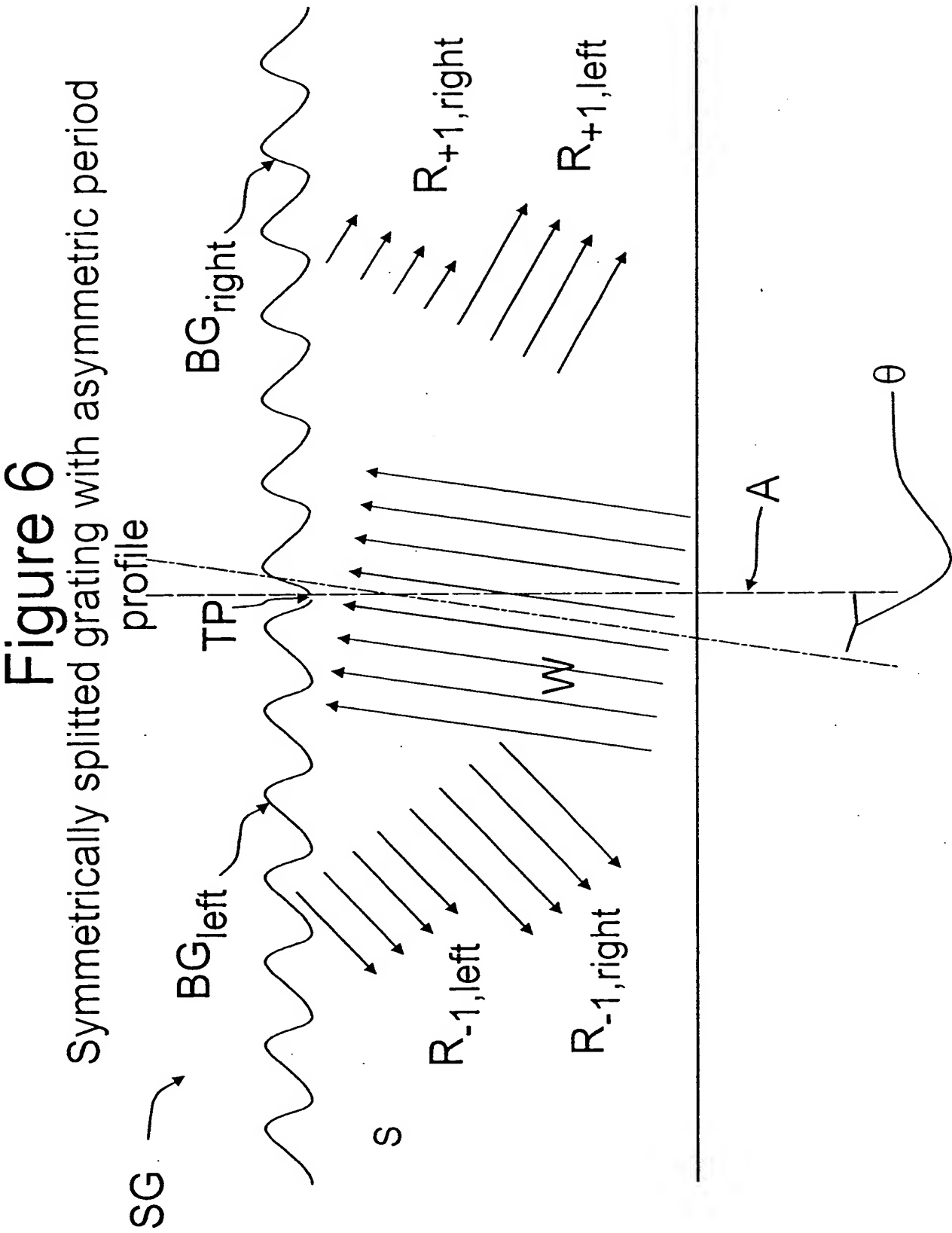


Figure 5

Continuous grating with asymmetric period profile





# Figure 7

Symmetrically splitted grating with beam shift

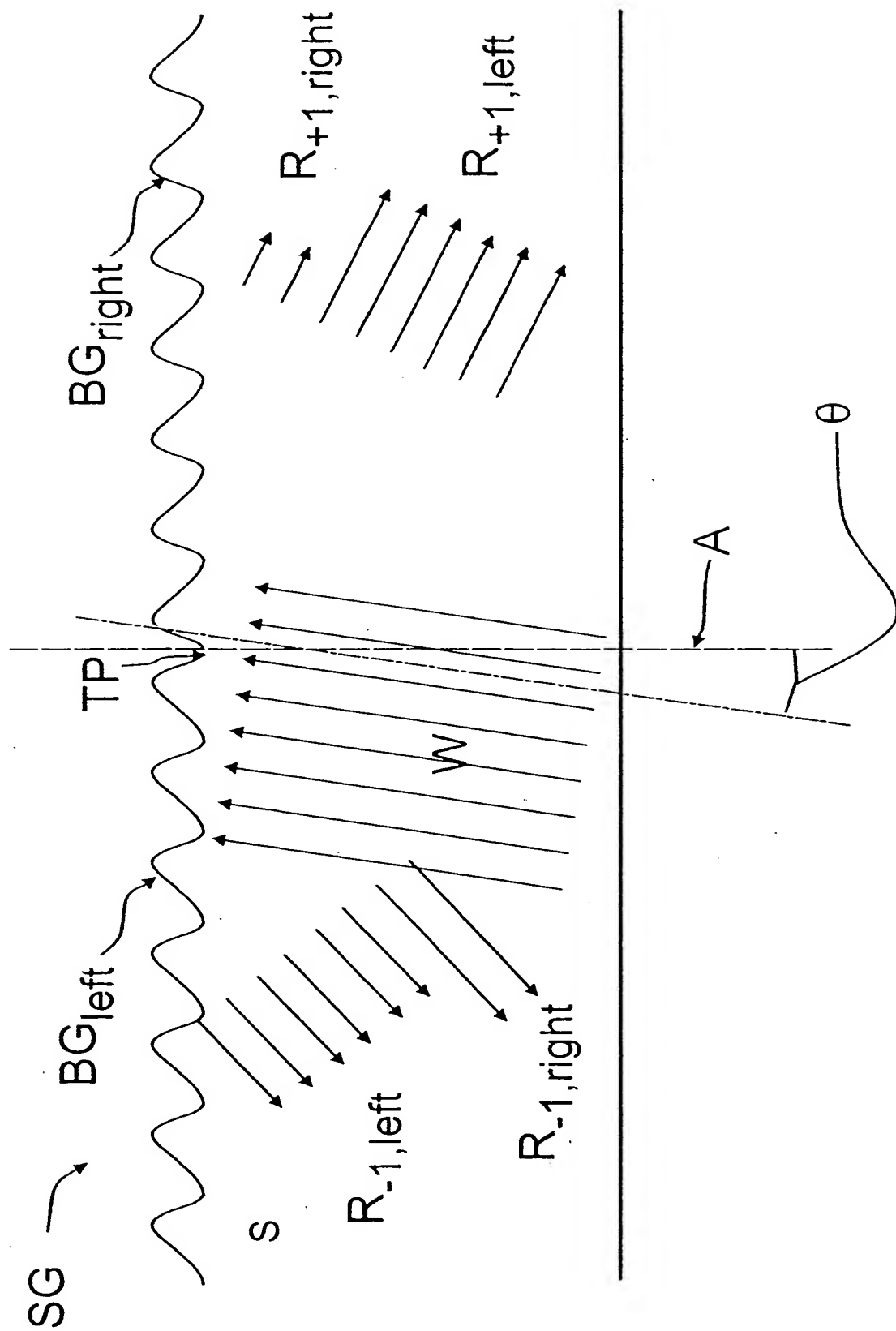
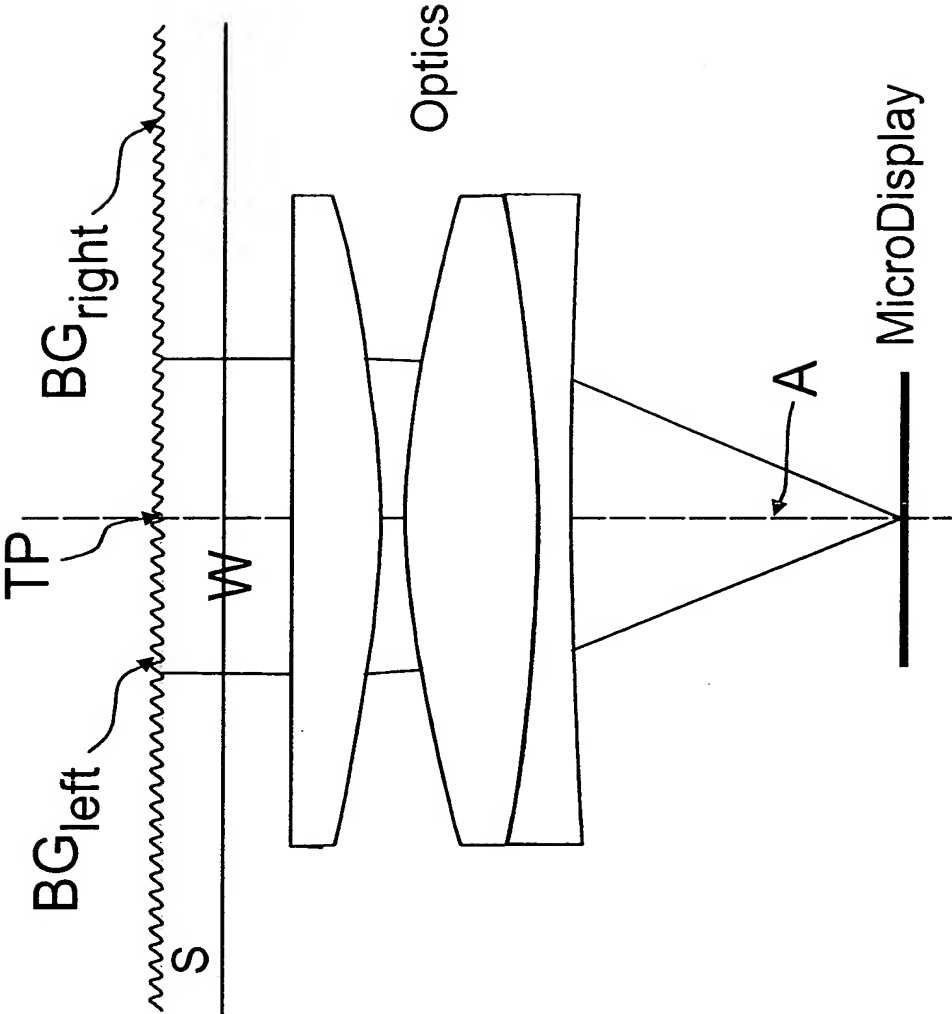
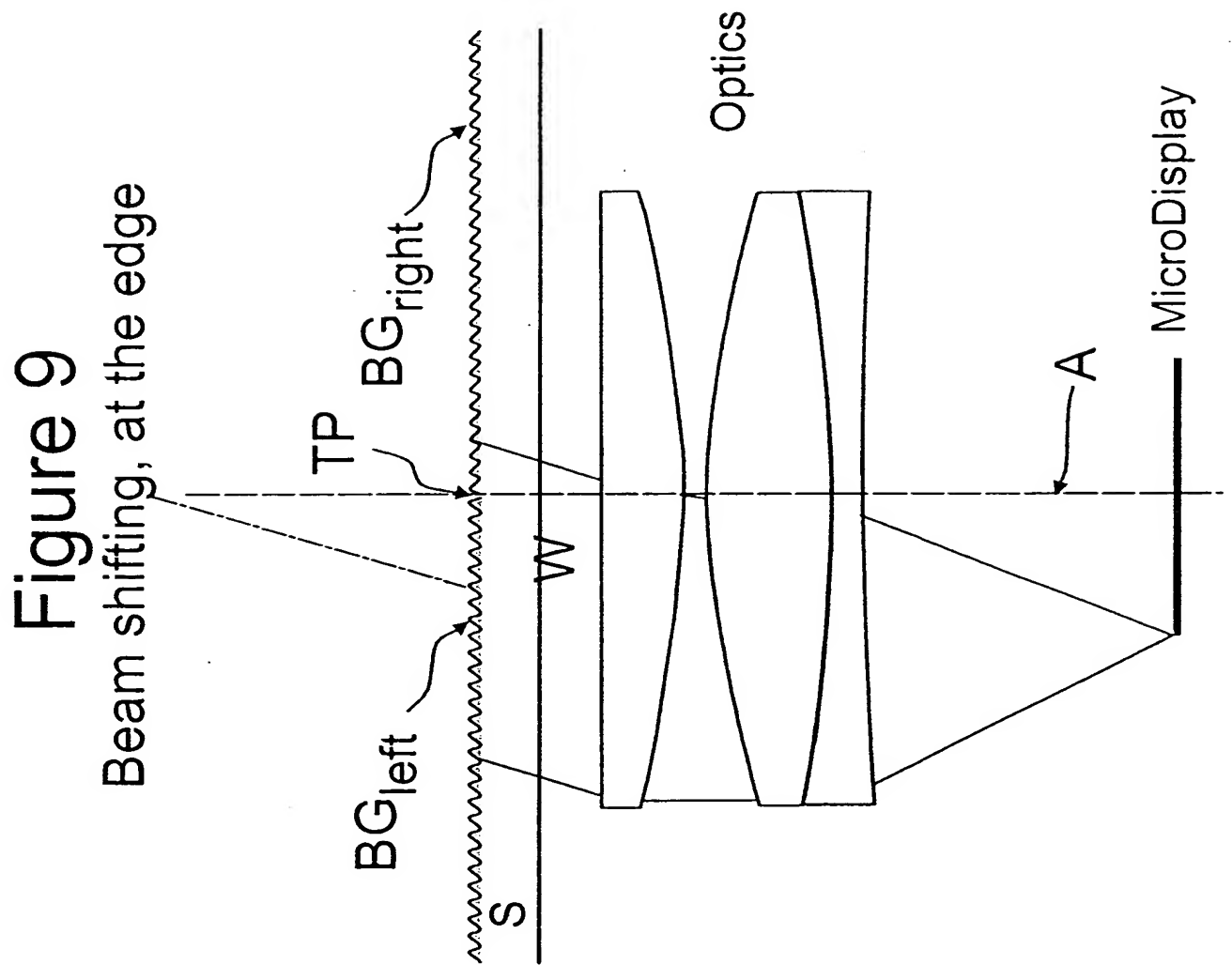


Figure 8  
Beam shifting, center

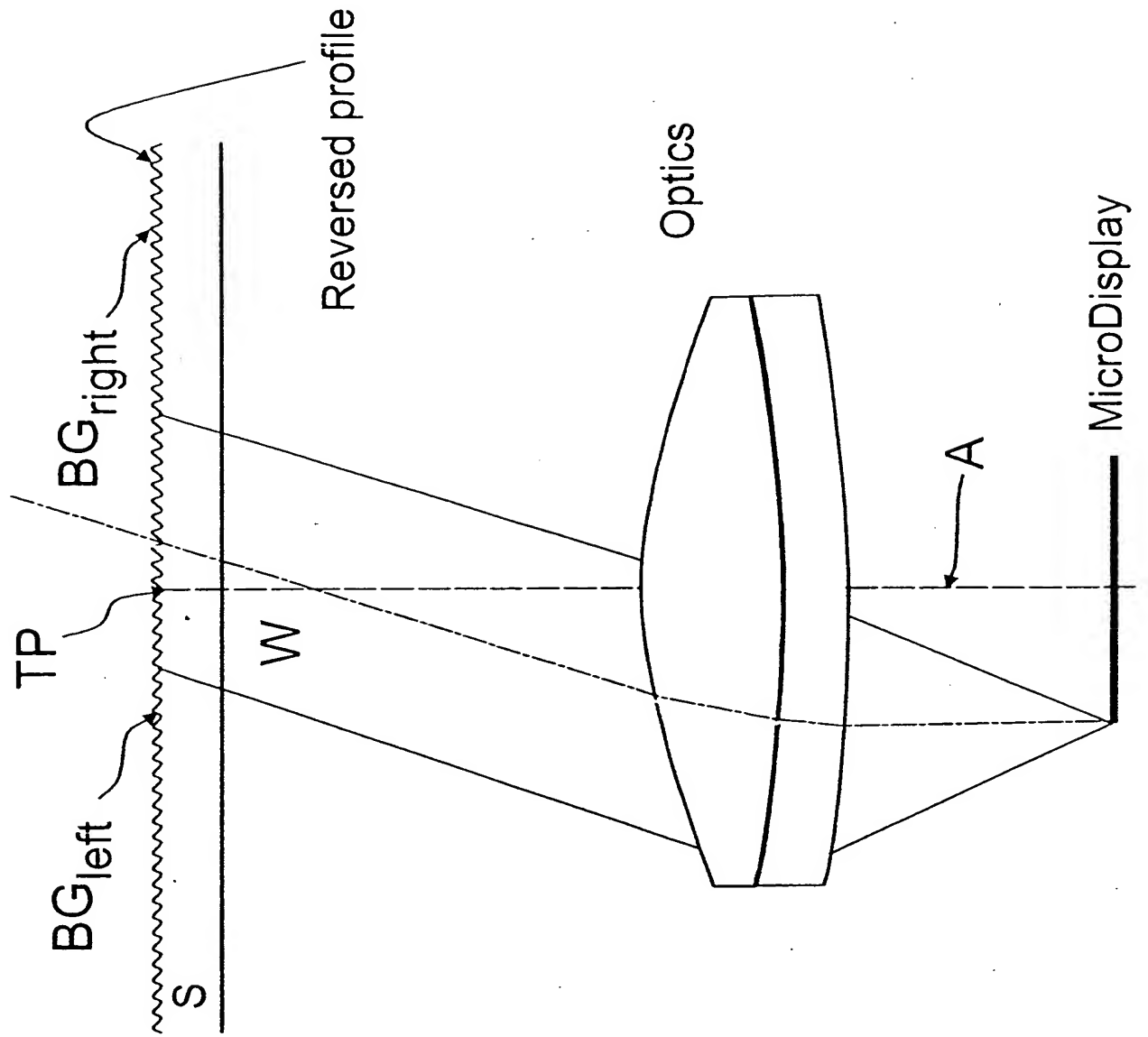






# Figure 10

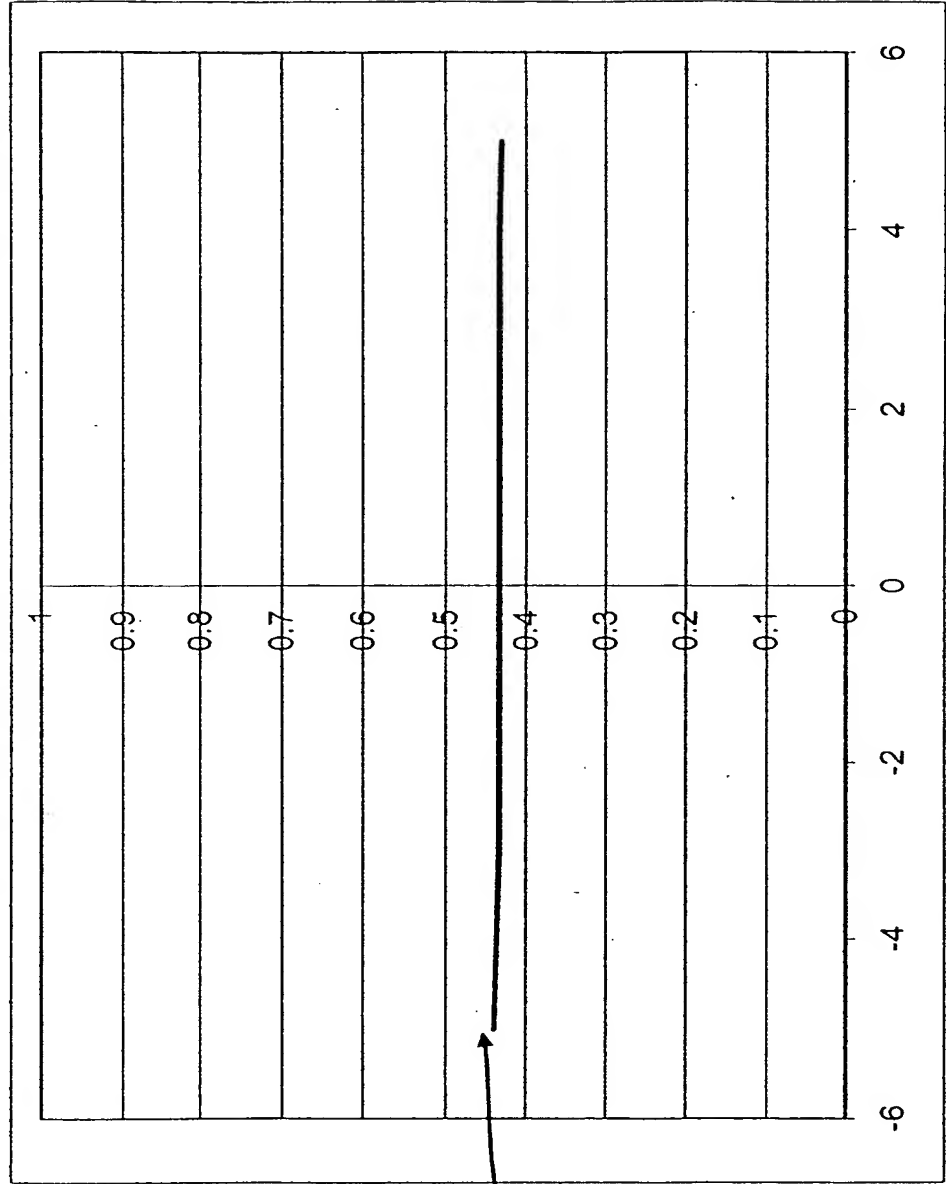
## Beam shifting alternative setup



# Figure 11

Compensation of Angular dependence

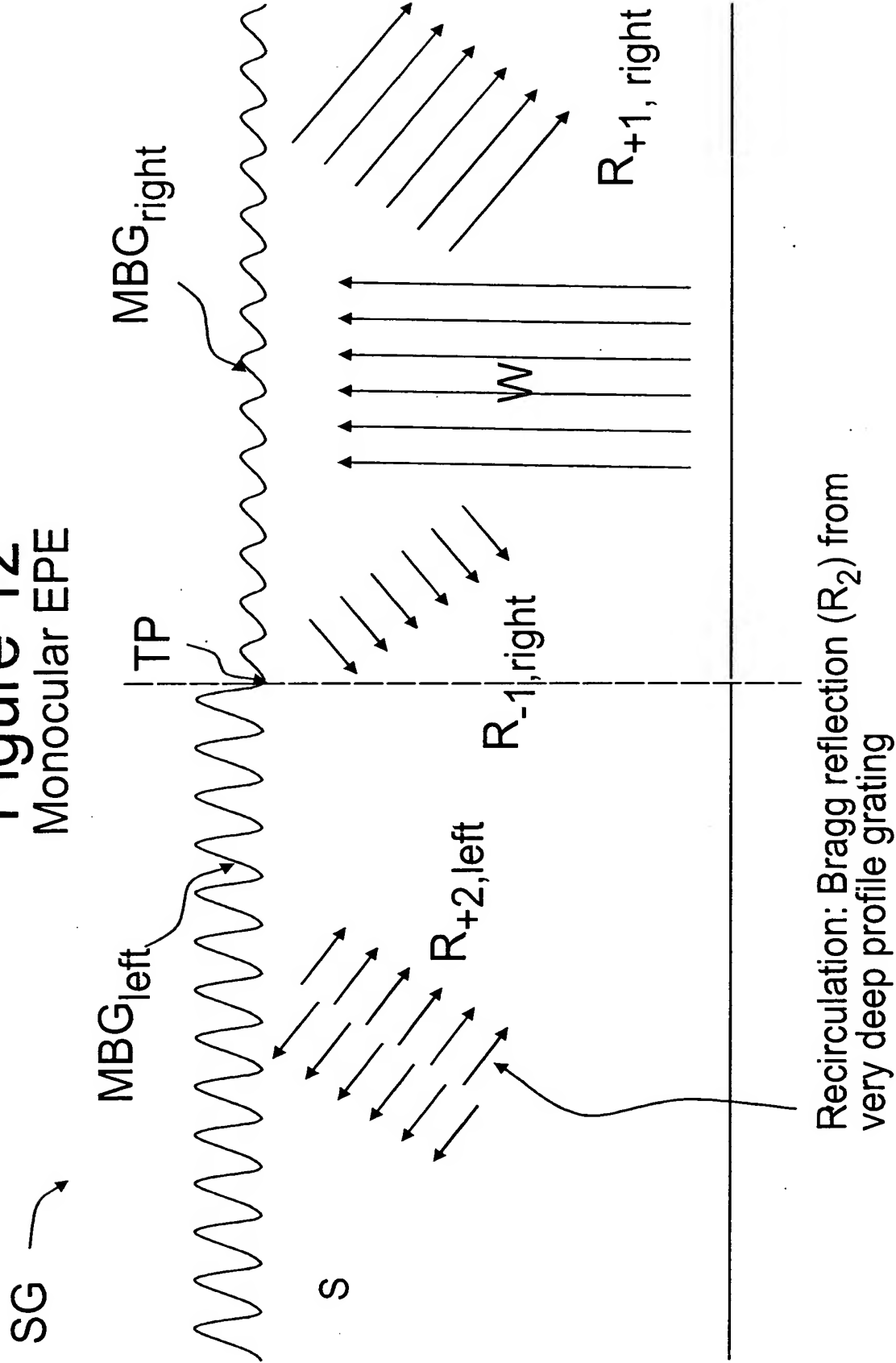
$$\text{Profile} = A^*[\sin(2\pi x/d) + 0.25\sin(4\pi x/d) + 0.05\sin(6\pi x/d)]$$



$$\eta = (0.5 - k\theta)R_{+1}(-\theta) + (0.5 + k\theta)R_{-1}(\theta)$$

Al coating

Figure 12  
Monocular EPE



Coupling Efficiency as a function of grating depth

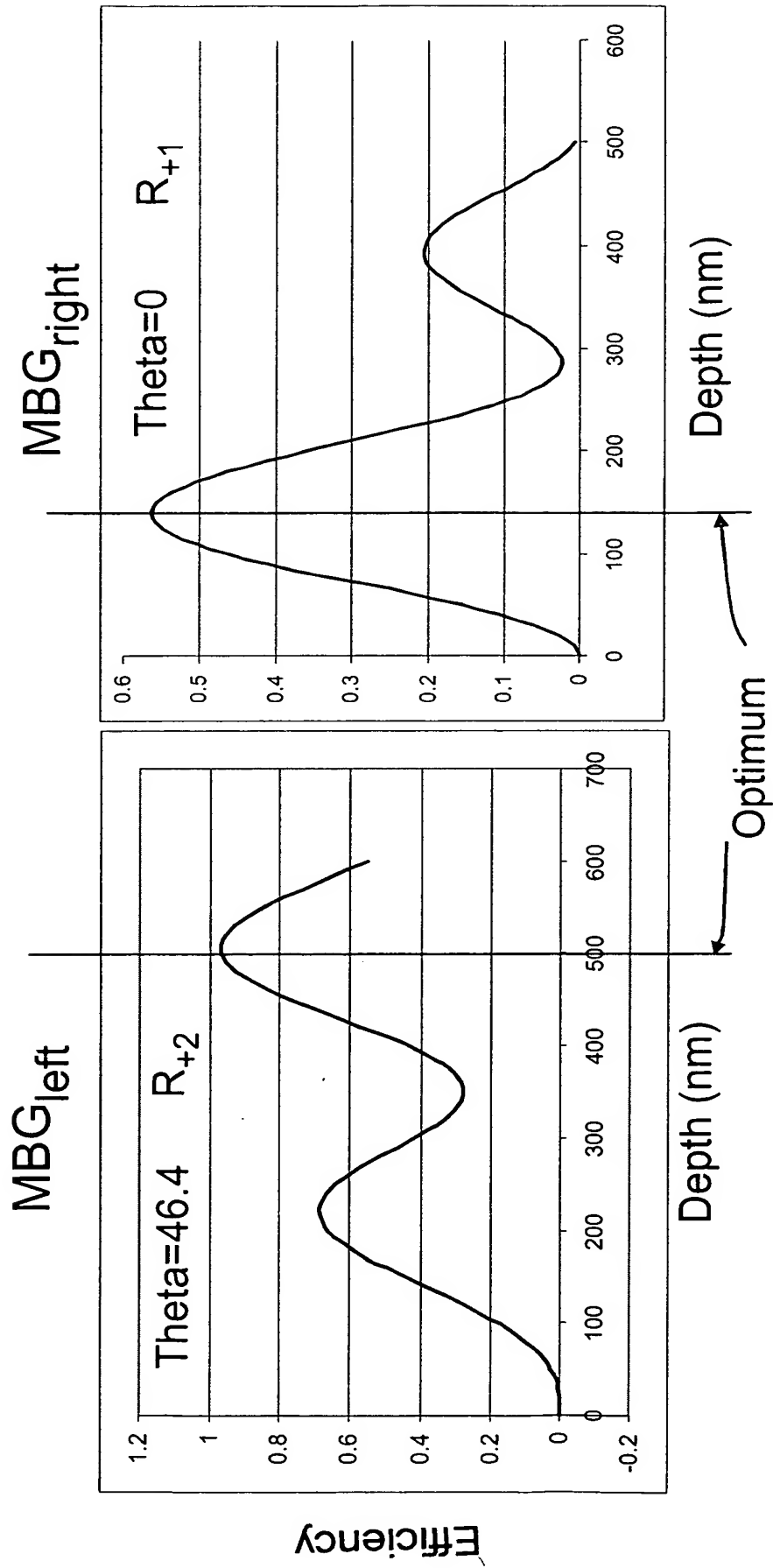


Figure 13a

Figure 13b